

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-13 - (canceled).

14. (new): A humidity sensor comprising:

an insulating substrate; and

a lower electrode, a moisture sensitive layer and an upper electrode successively formed on the insulating substrate,

wherein the lower electrode comprises a noble metal porous body, the upper electrode comprises a noble metal porous body, the moisture sensitive layer is porous, and the upper electrode is joined to the moisture sensitive layer and a portion of the insulating substrate, and

wherein a size of pores in the upper electrode is 0.5-20 μm , a size of pores in the lower electrode is 0.5-20 μm , a size of pores in the moisture sensitive layer is 0.05-0.2 μm , particles of ceramic are incorporated in an amount of 1-20 wt% into the upper electrode, particles of ceramic are incorporated in an amount of 1-20 wt% into the lower electrode, and one or both of the lower electrode and the upper electrode predominantly contains Pt.

15. (new): The humidity sensor as claimed in claim 14, further comprising a heater provided in the insulating substrate.

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16. (new): The humidity sensor as claimed in claim 15, comprising a temperature measurement resistor provided in the insulating substrate.

17. (new) The humidity sensor as claimed in claim 15, wherein the heater is located directly below the moisture sensitive layer.

18. (new): The humidity sensor as claimed in claim 16, wherein the temperature measurement resistor is located directly below the moisture sensitive layer.

19. (new): The humidity sensor as claimed in claim 14, adapted for measuring humidity in an atmosphere containing a very small amount of oxygen and containing a reducing gas.

20. (new): The humidity sensor as claimed in claim 14, wherein one or both of the lower electrode and the upper electrode predominantly contains Pt and further contains Rh.

21. (new): The humidity sensor as claimed in claim 14, wherein each of the lower electrode and the upper electrode predominantly contains Pt and further contains Rh.